

## Cellulase 44A from Clostridium thermocellum, Recombinant

Cat. No. NATE-1372

Lot. No. (See product label)

### Introduction

#### Description

Cellulase is any of several enzymes produced chiefly by fungi, bacteria, and protozoans that catalyze cellulolysis, the decomposition of cellulose and of some related polysaccharides; specifically, the hydrolysis of the 1,4-beta-D-glycosidic linkages in cellulose, hemicellulose, lichenin, and cereal beta-D-glucans. Cellulases break down the cellulose molecule into monosaccharides ("simple sugars") such as beta-glucose, or shorter polysaccharides and oligosaccharides. The name is also used for any naturally occurring mixture or complex of various such enzymes, that act serially or synergistically to decompose cellulosic material.

#### Synonyms

Cellulase, thermostable; 1,4-(1,3:1,4)-β-D-Glucan 4-glucano-hydrolase; EC 3.2.1.4; Cellulase; endo-1,4-β-D-glucanase; β-1,4-glucanase; β-1,4-endoglucan hydrolase; cellulase A; cellulysin AP; endoglucanase D; alkali cellulase; cellulase A 3; celludextrinase; 9.5 cellulase; avicelase; pancellase SS

### Product Information

#### Species

Clostridium thermocellum

#### Source

E. coli

#### Form

35 mM NaHepes buffer, pH 7.5, 750 mM NaCl, 200 mM imidazol, 3.5 mM CaCl<sub>2</sub>, 0.02% sodium azide and 25% (v/v) glycerol

#### EC Number

EC 3.2.1.4

#### CAS No.

9012-54-8

#### Molecular Weight

58.1 kDa

#### Purity

>90% by SDS-PAGE

#### Concentration

2 mg/ml

#### Optimum pH

4.0–6.0

#### Optimum temperature

65 °C

#### Specificity

CMC, β-glucan and xyloglucan with similar efficiencies

### Storage and Shipping Information

#### Storage

This enzyme is shipped at room temperature but should be stored at -20 °C.